X. APPENDIX.

Claims 1-6 and 12-35 which stand finally rejected and are the basis of the present appeal are presented below.

1. A method of removing at least some of a material from a semiconductor substrate, comprising:

providing a feed gas comprising at least 99.999% O_2 (by volume);

in an absence of additionally added gases, feeding the feed gas through an ozone generator to generate ozone from the feed gas; and

contacting the ozone or a fragment of the ozone with a material on a semiconductor substrate to remove at least some of the material from the semiconductor substrate.

2. The method of claim 1 further comprising irradiating at least some of the ozone with ultraviolet light prior to the contacting.

3. The method of claim 1 further comprising irradiating at least some of the ozone with ultraviolet light proximate the material.

4. The method of claim 1 wherein the material on the semiconductor substrate is photoresist.

5. The method of claim 1 further comprising mixing the ozone with water vapor prior to the contacting.

6 ~~6.~~ The method of claim 1 further comprising mixing the ozone with an organic solvent vapor prior to the contacting.

7 ~~12.~~ A method of removing at least some of a material from a semiconductor substrate, comprising:

providing a feed gas comprising 99.999% O_2 and less than or equal to 0.001% N_2 (by volume);

in an absence of additionally added gases, feeding the feed gas through an ozone generator to generate ozone from the feed gas;

forming a mixture of ozone and organic solvent vapors in a reaction chamber; and

contacting at least some of the ozone and solvent vapors with a material on a semiconductor substrate to remove at least some of the material from the semiconductor substrate.

8 ~~13.~~ The method of claim 12 wherein the material on the semiconductor substrate is photoresist.

9 ~~14.~~ The method of claim 12 wherein the material on the semiconductor substrate is photoresist; wherein the semiconductor substrate comprises Al_2O_3; and further comprising exposing at least some of the Al_2O_3 to the ozone during the contacting.

10 ~~15~~. The method of claim 12 wherein the material on the semiconductor substrate is photoresist; wherein the semiconductor substrate comprises platinum; and further comprising exposing at least some of the platinum to the ozone during the contacting.

11 ~~16~~. The method of claim 12 further comprising providing a reservoir of volatile organic solvent within the reaction chamber and forming the solvent vapors from the volatile organic solvent.

12 ~~17~~. The method of claim 16 wherein the volatile organic solvent is a liquid.

13 ~~18~~. The method of claim 16 wherein the volatile organic solvent comprises acetone.

14 ~~19~~. The method of claim 16 wherein the volatile organic solvent consists essentially of acetone.

15 ~~20~~. The method of claim 16 wherein the volatile organic solvent comprises cyclohexanone.

16 ~~21~~. The method of claim 16 wherein the volatile organic solvent consists essentially of cyclohexanone.

17 ~~22.~~ The method of claim 16 wherein the volatile organic solvent comprises a mixture of cyclohexanone and PGMEA.

18 ~~23.~~ The method of claim 16 wherein the volatile organic solvent comprises propylene glycol.

19 ~~24.~~ The method of claim 12 further comprising providing a reservoir of volatile organic solvent within the reaction chamber and heating the volatile organic solvent to form the solvent vapors from the volatile organic solvent.

20 25. A method of removing at least some of a material from a semiconductor substrate, comprising:

providing a feed gas comprising 99.999% O_2 and less than or equal to 0.001% N_2 (by volume);

in an absence of additionally added gases, feeding the feed gas through an ozone generator to generate ozone from the feed gas;

forming a mixture of ozone and organic solvent vapors in a reaction chamber;

irradiating at least some of the ozone with ultraviolet light to form ozone fragments from the ozone; and

contacting at least some of the ozone fragments and solvent vapors with a material on a semiconductor substrate to remove at least some of the material from the semiconductor substrate.

21 ~~26.~~ The method of claim 25 wherein the material on the semiconductor substrate is photoresist.

22 ~~27.~~ The method of claim 25 further comprising providing a reservoir of volatile organic solvent within the reaction chamber and forming the solvent vapors from the volatile organic solvent.

23 ~~28.~~ The method of claim 27 wherein the volatile organic solvent is a liquid.

24 ~~29.~~ The method of claim 27 wherein the volatile organic solvent comprises acetone.

25 ~~30.~~ The method of claim 27 wherein the volatile organic solvent comprises cyclohexanone.

26 ~~31.~~ The method of claim 27 wherein the volatile organic solvent comprises a mixture of cyclohexanone and PGMEA.

27 ~~32.~~ The method of claim 27 wherein the volatile organic solvent comprises propylene glycol.

28 ~~33.~~ The method of claim 25 further comprising providing a reservoir of volatile organic solvent within the reaction chamber and heating the volatile organic solvent to form the solvent vapors from the volatile organic solvent.

29 ~~34~~. The method of claim 25 wherein the material on the semiconductor substrate is photoresist; wherein the semiconductor substrate comprises Al_2O_3; and further comprising exposing at least some of the Al_2O_3 to the ozone fragments during the contacting.

30 ~~35~~. The method of claim 25 wherein the material on the semiconductor substrate is photoresist; wherein the semiconductor substrate comprises platinum; and further comprising exposing at least some of the platinum to the ozone fragments during the contacting.